INCOME ENHANCEMENT CHALLENGES AND OPPORTUNITIES

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Innovation which reduces cost or innovation which increases revenue can enhance income. Opportunities to increase profitability in agriculture abound! There are always attractive agricultural industry opportunities in a dynamic global economy; and new ones emerge as process and product technologies, market demographics, and competitive factors change. A program for enhancing income in agriculture has been established in The Ohio State University's College of Agriculture. The program's purpose is to focus concentrated intellectual effort on the conceptualization and evaluation of alternatives to enhance agricultural income and promote long-term stability in agriculture.

Emphasis is on the development of novel, innovative and imaginative alternatives in commodity marketing, postharvest technologies, food processing and distribution, and policy. This broad multidisciplinary research program, of national scope, therefore encompasses adaptive innovation in production, marketing, end-uses, and organizations.

The specific objectives of the program are to:

* Identify and analyze innovation in new products, new markets, postharvest technology, and marketing alternatives which hold the potential to enhance income.
* Provide international leadership in conceptualizing and advancing innovative concepts that could bring growth and stability to agriculture.
* Conduct an outreach program to make results available to producers, agribusiness leaders, public officials, and the general public.
* Build a top quality academic program to serve as a locus of excellence in agricultural innovation, marketing and policy.

Research Areas

Several broad categories of research are considered as areas of interest and concentration for the Income Enhancement Program. The central theme throughout is the identification and assessment of innovation. The categories are not mutually exclusive, but they serve to illustrate the breadth and substance of the Income Enhancement Program.

New markets: This area involves identifying and assessing specific technology for application to production agriculture and/or food processing. Included are items such as consumer preference studies on grades or other quality factors, niche market feasibility studies such as high-lysine corn for snack food processors, and demand analysis of existing but evolving markets such as "lite" beef, organic products, and high-fiber foods. Alternative industrial non-food markets, such as corn use in degradable plastics, and non-traditional food markets, such as soybean use in tofu, are examples of research topics under this general category.

New products: Feasibility of commercialization of technologically new products is an exciting area of work. Significant research in new products is done by the Agricultural Research Service of the U.S. Department of Agriculture and several land-grant universities. The Income Enhancement Program will relate to this research primarily through interpreting its potential for increasing profitability to producers. This would include studies of biotechnology-based applications to production agriculture, such as BGH in dairy cattle, or to applications in food processing. Current research on genetically modified oils has implications for the future demand and market share of various vegetable oils. Identification and evaluation of profitable alternative enterprises could evolve as part of this general category of research.

Organization: This category includes evaluation of alternative organizational forms for producers and alternative marketing strategies that enhance income. Alternative organizational forms would include cooperatives, marketing agencies-in-common, and/or joint ventures. The environment which induces an altered organizational form may include assuring long-term viability of markets, capturing margin, or facilitating vertical coordination or integration. Also included is evaluation of alternative strategies such as hedging and forward contracting.

Strategic planning: This area is evaluating long-term economic factors influencing the market position of a commodity, cooperative, or industry, using scenario analysis. Industry environments vary widely in their structural characteristics, growth prospects, stage of evolution, and combinations of competitive pressures. Depending on the environment, some strategic options are more appropriate than others. Key elements of a strategic planning evaluation usually include the identification of factors beyond the control of managers, yet which will shape the environment within which the business must operate in the future.

Economic efficiency or cost/benefit: Assessing innovation in economic terms can take many forms. This area includes innovation in post-harvest technologies such as handling and packaging alternatives, improved technologies or methods for reducing product loss caused by contamination or insects, and cost/benefit analyses of innovation in processing and distribution. This area of research also would examine alternatives for reducing cost from a marketing system perspective and assessing pricing accuracy, especially price differences by quality. A parallel area is innovation in price discovery, such as creation or implementation of computerized on-screen trading systems to enhance marketing system efficiency.

Value added: This topic involves research in the economic viability and location of additional further processing facilities. Economic viability and optimal location of additional processing often depends on costs and sources of supply. Capacity utilization rates of new and existing processing facilities are critical in assessing economic viability of additional or relocated facilities. In turn, capacity utilization will depend on demand for the output in local or regional markets, or sometimes even in national or international markets. These assessments might include the potential for ownership or contractual forward integration by producers into particular value-added industries. Studies which inventory capacity or use of current value-added facilities in food processing, production, or retailing also may be done.

Competitiveness: Markets for many major agricultural commodities are truly global. Exports are very important to the trade balance for the United States. This area includes evaluation of the current international competitive posture of production and food processing industries. Studies may estimate current or future demand and market shares, both domestic and foreign. Topics such as absolute or comparative advantage and market structure could be part of this general category of work. The aim of specific activity within this category would be to enhance agricultural income through enhancing competitiveness of U.S. agricultural production or processing.

Policy: This area emphasizes policy to facilitate development and maintenance of markets. Identification and evaluation of three major types of policy are included: 1) trade policy, 2) food policy, and 3) trade practice regulations. Although the focus of the overall program is not on policy analysis, certain policies influence agricultural income to a significant degree. Understanding the influence of such policies may be a critical part of research to enhance agricultural income over time, and thus become part of the program.

Alternatives to protectionist policies or other innovative avenues with the potential to improve the trade posture of the United States are examples of relevant topics. Also, the move toward a unified European market by 1992 has implications for U.S. agriculture and must be monitored closely and understood in terms of implications for producers.

Environment: This area incorporates research to enhance environmentally acceptable methods of production and marketing. For example, identification and evaluation of innovation in waste treatment, water treatment, chemical use, or other similar technologies are part of this area. The research is intended to analyze the costs and benefits of implementing such technology.

Focus and Coordination

The program has national focus in terms of developing innovative concepts and implementation of research that explores the ramifications of those concepts. Cooperation across states with land-grant and other universities is established through regional research projects, "seed-money" funding of innovative research proposals regardless of where they arise, and sponsorship of regional or national conferences and symposia. Effort is exerted to minimize duplication and capture the benefits of complementary activities from wherever they occur. The expertise of distinguished scholars, leaders from the agricultural community, prominent policy analysts, public officials, agribusiness leaders, and other authorities from around the nation and the world can be drawn upon. Publications, conferences, workshops and seminars are used to identify, develop and assess innovative ideas and to disseminate results of the research effort.

Significant Opportunities and Challenges

Technology has created a shrinking world over time. The business environment of the future is one of global interdependence. Understanding markets and the delivery system linking them will be a key to profitability. The Income Enhancement Program at The Ohio State University offers the opportunity to focus a sustained research effort on innovation and profitability. This challenge is substantial and very exciting!